

CORRECTED VERSION

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
9 June 2005 (09.06.2005)

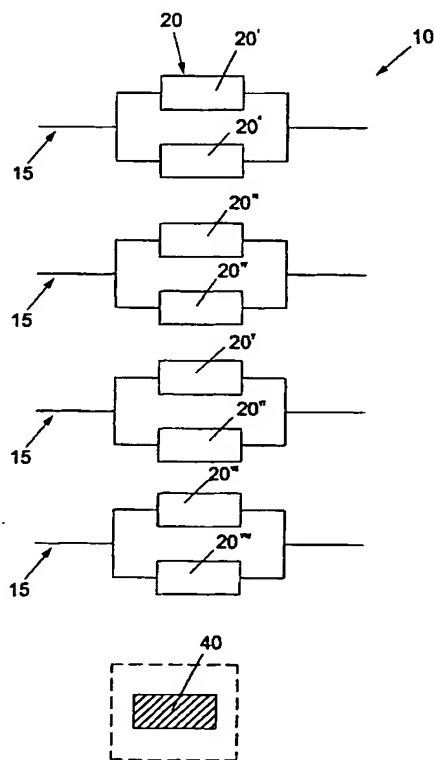
PCT

(10) International Publication Number  
WO 2005/052341 A1

- (51) International Patent Classification<sup>7</sup>: F02C 9/42, 6/00, F01D 21/00
- (21) International Application Number: PCT/EP2004/013403
- (22) International Filing Date: 25 November 2004 (25.11.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: MI2003A 002324 27 November 2003 (27.11.2003) IT
- (71) Applicant (for all designated States except US): NUOVO PIGNONE HOLDING S.P.A. [IT/IT]; Via F. Matteucci, 2, I-50127 Firenze (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GUGLIOTTA, Giuseppe [IT/IT]; Via Luigi Pera 10, I-56124 Pisa (IT). NUZZI, Giuseppe [IT/IT]; Largo A. Banfi, 10, I-50018 Scandicci (IT). CORZI, Vincenzo [IT/IT]; Via P. Togliatti, 1, I-50055 Lastra A Signa (IT).
- (74) Agents: DE GREGORI, Antonella et al.; Barzano' & Zarnardo Milano S.P.A., Via Borgonuovo 10, I-20121 Milan (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

[Continued on next page]

(54) Title: PROCEDURE FOR CONTROLLING THE USEFUL LIFE OF THE GAS TURBINES OF A PLANT



(57) Abstract: Procedure for controlling the useful life of the gas turbines of a plant by means of a production plant (10) equipped with a series of production trains (15) and an auxiliary gas generator group (40). Each production train (15) is in turn equipped with a series of gas turbine groups (20), each of which in turn includes a gas generator. The procedure comprises the following phases: a) creating a succession (20', 20'', 20''' ... ) of gas generator groups of gas turbines (20) to be subjected to maintenance; b) substituting the first gas generator group of gas turbines (20') of the succession (20', 20'', 20''' ... ) with the auxiliary gas generator group (40), to keep the production plant (10) functioning almost continuously; c) controlling the first substituted gas generator group of gas turbines (20'), by subjecting it to ordinary maintenance operations; d) substituting the second gas generator group of gas turbines (20'') of the succession (20', 20'', 20''' ... ) with the first controlled gas generator group of gas turbines (20'); e) controlling the second substituted gas generator group of gas turbines (20''), by subjecting it to ordinary maintenance operations; f) repeating said phases b), c) d) and e) for all the gas generator groups of gas turbines (20) of the succession (20', 20'', 20''' ... ) until all the gas generator groups of the gas turbines (20) of the plant (10) have been subjected to control and maintenance.

WO 2005/052341 A1



TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

**Published:**

— with international search report

- (84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**(48) Date of publication of this corrected version:**

4 August 2005

**(15) Information about Correction:**

see PCT Gazette No. 31/2005 of 4 August 2005, Section II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*